



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/848,449	05/03/2001	Yuping Ambuel	700399.90126	7215
7590	05/04/2005		EXAMINER	
Nicholas J. Seay Quarles & Brady LLP 1 South Pinckney Street P O Box 2113 Madison, WI 53701-2113			LILLING, HERBERT J	
			ART UNIT	PAPER NUMBER
			1651	
DATE MAILED: 05/04/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/848,449

Applicant(s)

AMBUEL ET AL.

Examiner

HERBERT J. LILLING

Art Unit

1651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Oct 18, 2004
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) 10-30 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 31-33 is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 10-30 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

1. Receipt is acknowledged of the amendments filed October 18, 2004.

2. Claims 1-33 are now pending in this application.

Claims 1-9 and new claims 31-33 are drawn to the elected invention.

Claims 10-30 have been withdrawn from consideration as drawn to the non-elected invention.

3. The rejections of Claims 7-9 under 35 USC 102 as submitted in the last office action have been withdrawn in view of the persuasive arguments. However, Claims 1-9 stand rejected for the reasons submitted in the previous office action.

The arguments as submitted have been deemed not to be persuasive to withdraw the rejections. Applicant has that one of ordinary skilled in the art knows what is meant by "S-30 extract" but the issue is that the claim is drawn to a product and that the claim is drawn to a process step which is the "S-30 extract". This expression, "S-30 extract", does not define the product per se which is totally dependent upon the process of making the product, therefor the conditions are required.

Applicant has argued that:

"During the pendency of this patent application, U.S. Patent No. 6,532,522 issued. Claim 11 of that patent specifically mentions an S-30 extract from E. coli using language similar to that used in the present application."

Art Unit: 1651

It is noted that :

US-PAT-NO: 6532522 TITLE: Asynchronous request/synchronous data dynamic random access memory DATE-ISSUED: March 11, 2003

INVENTOR-INFORMATION: NAME CITY STATE ZIP CODE COUNTRY

Barth; Richard Maurice Palo Alto CA

Horowitz; Mark Alan Palo Alto CA

Hampel; Craig Edward San Jose CA

Ware; Frederick Abbot Los Altos Hills CA

US-CL-CURRENT: 711/167; 711/105

CLAIMS:

What is claimed is:

1. A method of operation of a memory device, the method comprising: detecting a transition in a strobe signal; outputting first data upon detection of the transition in the strobe signal; and outputting second data synchronously with respect to an external clock signal, wherein the second data is output subsequent to the first data.
2. The method of claim 1 wherein the second data is output synchronously with respect to rising and falling edge transitions of the external clock signal.
3. The method of claim 1 further comprising receiving mode selection information, wherein the memory device outputs data synchronously with respect to the external clock signal when the mode selection information indicates a first state, and outputs data in response to the strobe signal when the mode selection information indicates a second state.
4. The method of claim 3 wherein outputting the first data is asynchronous with respect to the external clock.
5. The method of claim 1 further comprising receiving a read command wherein the first data is output in response to the read command.

Art Unit: 1651

6. The method of claim 5 wherein receiving the read command includes sampling an external signal line in response to a detection of a transition in a control signal.
7. The method of claim 1 further including receiving address information that specifies a storage location within a memory cell array of the memory device.
8. The method of claim 7 wherein receiving the address information, outputting the first data, and outputting the second data are realized over a common set of signal lines.
9. A method of operation in a memory device, the memory device receiving an external clock signal and including a memory cell array, the method comprising: detecting a transition in a first strobe signal; accepting address information upon detection of the transition in the first strobe signal, wherein the address information indicates a locality of data within the memory cell array; detecting a transition in a second strobe signal; and outputting the data, in response to detecting the transition in the second strobe signal, after a number of clock cycles of the external clock signal transpire.
10. The method of claim 9 wherein the data is output synchronously with respect to the external clock signal.
- 11. The method of claim 9 wherein the data is output in response to rising and falling edge transitions of the external clock signal.**

The reference appears to be in error.

The reference is probably the following:

DOCUMENT-IDENTIFIER: US 6562622 B1 TITLE: Continuous in vitro evolution

DATE-ISSUED: May 13, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Coia; Gregory	Brunswick	Victoria		AU
Hudson; Peter John	Blackburn	Victoria		AU
Iliades; Peter	North Balwyn			AU

Victoria

Irving; Robert Alexander

Mulgrave Victoria

AU

1. A method for the mutation, synthesis and selection of a protein which binds to a target molecule, the method comprising: (a) incubating a replicable mRNA molecule encoding the protein with ribonucleoside triphosphate precursors of RNA and an RNA-directed RNA polymerase, wherein the RNA-directed RNA polymerase replicates the mRNA molecule but introduces mutations thereby generating a population of mutant mRNA molecules; (b) incubating the mutant mRNA molecules from step (a) with a translation system under conditions which result in the synthesis of a population of mutant proteins such that after translation, mutant proteins are linked to their encoding mRNA molecules thereby forming a population of mutant protein/mRNA complexes; (c) selecting one or more mutant protein/mRNA complex(es) by exposing the population of mutant protein/mRNA complexes from step (b) to a target molecule and recovering the mutant protein/mRNA complex(es) bound thereto; and (d) optionally releasing the mRNA molecules from the complex(es),

wherein step (b) follows step (a), and wherein step (c) follows step (b).

2. A method for the mutation, synthesis and selection of a protein which binds to a target molecule, the method comprising: (a) incubating a replicable mRNA molecule encoding the protein with ribonucleoside triphosphate precursors of RNA and an RNA-directed RNA polymerase, wherein the RNA-directed RNA polymerase replicates the mRNA molecule but introduces mutations thereby generating a population of mutant mRNA molecules; (b) incubating the mutant mRNA molecules from step (a) with a translation system under conditions which result in the synthesis of a population of mutant proteins such that after translation, mutant proteins are linked to their encoding mRNA molecules thereby forming a population of mutant protein/mRNA complexes; (c) selecting one or more mutant protein/mRNA complex(es) by exposing the population of mutant protein/mRNA complexes from step (b) to a target molecule; (d) repeating steps (a) to (c) one or more times, wherein the replicable mRNA molecule used in step (a) is the mRNA obtained from complex(es) selected in step (c); (e) recovering mutant protein complexes bound to the target molecule(s); and (f) optionally releasing or recovering the mRNA molecules from the complex(es),

wherein step (b) follows step (a), wherein step (c) follows step (b), wherein step (d) follows step (c), and wherein step (e) follows step (d).

3. A method as claimed in claim 2 in which step (d) is repeated more than once.

4. A method as claimed in claim 1 in which the mutant proteins are linked to their encoding mRNA molecules via ribosome complexes.

5. A method as claimed in claim 1 in which steps (a) to (d) are carried out simultaneously in either a single or multiple chambered vessel, wherein the multiple chambered vessel allows the transfer of fluids between chambers.

Art Unit: 1651

6. A method as claimed in claim 1 in which the RNA-directed RNA polymerase (i) introduces mutations into the replicated RNA molecule at a frequency of at least one point mutation in 10.sup.4 bases; or (ii) introduces at least one insertion or deletion at a frequency of 10.sup.-4.

7. A method as claimed in claim 1 in which the RNA-directed RNA polymerase (i) introduces mutations into the replicated RNA molecule at a frequency of at least one point mutation in 10.sup.3 bases; or (ii) introduces at least one insertion or deletion at a frequency of 10.sup.-3.

8. A method as claimed in claim 1 in which the RNA-directed RNA polymerase is selected from the group consisting of Q.beta. replicase, Hepatitis C RNA-directed RNA polymerase, Vesicular Stomatitis Virus RNA-directed RNA polymerase, Turnip yellow mosaic virus replicase and RNA bacteriophage phi 6 RNA-dependent RNA.

9. A method as claimed in claim 1 in which the RNA-directed RNA polymerase is Q.beta. replicase.

10. A method as claimed in claim 1 in which the translation system is a cell-free translation system.

11. A method as claimed in claim 10 in which the cell-free translation system comprises an S-30 extract from Escherichia coli.

There is absolutely no conflict since there is a difference between a process claim and a product claim. In this application, Claim 11 is drawn to a process which depends upon different factors in considering the patentability which process is dependent upon process conditions in defining the claim. The instant claims are drawn to products which must be defined as to the structure or other means to define the product which are not present in the instant claims.

There is no problem with the word "extract" as long as it is defined as to the scope of the process steps required to obtain the "extract" by extracting specific components employing specific process steps which are sufficient to define the "extract".

4. Claims 31-33 are allowed.

5. Claims 23-26 will also be allowed upon amendment of the claims in accordance with the following rejoinder policy of this Tech Center:

F.P.: Ochiai/Brouwer Rejoinder form paragraph

The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and a product claim is subsequently found allowable, withdrawn process claims that depend from or otherwise include all the limitations of the allowable product claim will be rejoined in accordance with the provisions of MPEP § 821.04. Process claims that depend from or otherwise include all the limitations of the patentable product will be entered as a matter of right if the amendment is presented prior to final rejection or allowance, whichever is earlier. Amendments submitted after final rejection are governed by 37 CFR 1.116; amendments submitted after allowance are governed by 37 CFR 1.312.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103, and 112. Until an elected product claim is found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowed product claim will not be rejoined. See "Guidance on Treatment of Product and Process Claims in light of *In re Ochiai*, *In re Brouwer* and 35 U.S.C. § 103(b)," 1184 O.G. 86 (March 26, 1996). Additionally, in order to retain the right to rejoinder in accordance with the above policy, Applicant is advised that the process claims should be amended during prosecution either to maintain dependency on the product claims or to otherwise include the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder.**

Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

Will accept the following:

Claim 26, line 1 add after "mixture" the following ---- of claim 31----- to allow

Art Unit: 1651

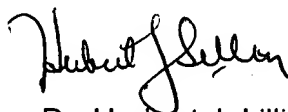
6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Examiner Lilling whose telephone number is 571-272-0918** and **Fax Number** is (703) 872-9306 or SPE Michael Wityshyn whose telephone number is 571-272-0926. Examiner can be reached Monday-Thursday from about 5:30 A.M. to about 3:00 P.M. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0196.

Information regarding the status of an application may be obtained from the Patent Application information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://portal.uspto.gov/external/portal/pair>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

H.J.Lilling: HJL
(571) 272-0918
Art Unit **1651**
May 02, 2005



Dr. Herbert J. Lilling
Primary Examiner
Group 1600 Art Unit 1651